

NOTES

An Extreme Range Extension and Disjunction for the Ephemeroptera Family
Potamanthidae in North America

As part of our inventory of mayflies of far western North America, we have studied materials held in several important collections. In a small California collection borrowed from the Illinois Natural History Survey, we identified larvae of *Anthopotamus verticis* (Say) (Potamanthidae) [2 larvae, El Dorado County, Upper Truckee River, Route 299, 2-X-1976, Furnish]. This is an important and unexpected discovery, because the family previously has been known in North America only from one genus and four species restricted to far eastern and east-central North America (Bae and McCafferty 1991). *Anthopotamus verticis* along with *A. myops* (Walsh) are the most widespread of the species, with *A. verticis* having been known from 20 U.S. states and Canadian provinces, only as far west as Minnesota, Iowa, Missouri, and far eastern Oklahoma.

Life history, riverine habitat preferences, filter feeding, and interstitial burrowing behavior for *A. verticis* have been investigated by McCafferty and Bae (1992, 1994); Bae and McCafferty (1994), and Yanoviak and McCafferty (1995). The Upper Truckee River in east-central California would predictably provide an adequate environment for the larval development of this species.

Bae and McCafferty (1991) hypothesized that the origin of the North American genus *Anthopotamus* McCafferty and Bae within the Laurasian family Potamanthidae coincided with vicariance of North America and Eurasia in the Northern Hemisphere (probably the Eocene event). Whereas the resultant Eastern Hemisphere clade involving the

genus *Potamanthus* Pictet is widespread across Eurasia, it was hypothesized that *Anthopotamus* also may have been widespread in North America at one time (Bae and McCafferty 1991). The discovery of *A. verticis* in California now supports that hypothesis, with the highly disjunct occurrence in California possibly an isolated relict of a historically more widespread continental pattern. Although widespread transcontinental distribution patterns in today's mayfly fauna are becoming known for a growing number of species as central areas are investigated, extreme east-west disjunct patterns are evidently rare in mayflies at the species level. *Cinygmula subaqualis* (Banks) (Heptageniidae), *Attenella attenuata* (McDunnough) (Ephemerellidae), and *A. verticis* are representative of the latter.

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Kivuiops: A New Name for a Generic Homonym of Afrotropical Baetidae (Ephemeroptera)

Lugo-Ortiz and McCafferty (1996) proposed the generic name *Kivua* for two distinct Afrotropical species previously assigned to *Cloeon* Leach and *Rhithroclaeon* Gillies (Ephemeroptera: Baetidae). Forsius (1934), however, previously used the same generic name for certain sawfly species (Hymenoptera: Tenthredinidae) from Africa. Because our generic name was therefore pre-occupied, we propose the replacement name *Kivuiops* (**new name**) [= *Kivua* Lugo-Ortiz and McCafferty 1996 (**new homonym**), nec *Kivua* Forsius 1934]. The two species included in *Kivuiops* are *K. elouardi* (Gillies) (**new combination**) and *K. insuetum* (Kopelke) (**new combination**)..—

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Müncheberg, Germany) for kindly informing us about the sawfly genus *Kivua*.

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